



ANCD POSITION PAPER

Needle and Syringe Programs

October 2013

Position statement:

The Australian National Council on Drugs (ANCD) is the principal advisory body to the Prime Minister and the Federal Government on drug and alcohol policy, and recognises the significant contribution of needle and syringe programs (NSPs) to public health. We call on all Australian governments to continue to commit to the operation and expansion of NSPs, and to recognise NSPs as a core business of Australia's alcohol and other drug sector.

The ANCD believes that while it is important to utilise NSPs to provide additional health services, education, and referrals to people who inject drugs, the provision of sterile injecting equipment should remain a primary focus. We believe that it is appropriate for Australia to aim for 100 per cent coverage of injections with sterile equipment, and for its NSPs to operate in ways that facilitate this aim.

It is important that NSPs continue to be funded at appropriate levels, and that there is a much greater level of transparency of the funding provided.

In addition, ongoing data needs, and current data gaps, require that a national minimum data set for all Australian needle and syringe programs is developed and implemented.

Recommendations:

1. A continued commitment by all Australian governments to the operation and expansion of NSPs in Australia.
2. Develop systems that enable transparency in NSP funding.
3. Develop and implement a national minimum data set for all Australian NSPs.
4. Consider further development of the *National NSP Strategic Framework*, or the extension of the current Framework beyond 2014.
5. As part of an aim to attain 100 per cent coverage of injections with sterile injecting equipment, increase the availability and accessibility of sterile equipment for people who inject drugs, by:
 - 5.1. Expanding the number of NSP service locations (including syringe vending machines), and broadening of the types of health-related services involved in delivering NSP services.
 - 5.2. Encouraging primary NSP services to initiate and support a range of secondary outlets within agreed geographical boundaries.
 - 5.3. Increasing the role and participation of non-government organisations, particularly peer-based services, in NSP delivery.
 - 5.4. Removing any restrictions that limit the amount of sterile equipment that may be dispensed.
 - 5.5. Ensuring that equipment is free wherever possible.
 - 5.6. Increasing the range of injecting equipment available at NSPs, including ensuring the provision of ancillary equipment, to meet the existing needs of people who inject drugs and changing patterns of drug use.
 - 5.7. Supporting research into understanding the injecting practices of people using pharmaceutical opioids and performance and image enhancing drugs, as a component of increasing their awareness about and willingness to access NSPs.
 - 5.8. Removing any onerous approval processes necessary for health services and staff to be involved in NSPs.
 - 5.9. Amending all relevant legislation (Federal or jurisdictional) to legally permit the secondary distribution of sterile injecting equipment (e.g. by peers and others) to people who inject drugs.
6. Update and further disseminate the Australian Government's NSP Information kit to the community, and particularly people whose work may bring them into contact with NSP attendees who are not primary NSP staff, including police, pharmacy and hospital workers, to further inform

them on the functions and successes of NSPs.

- 7.** Increase the provision of ongoing training and opportunities for professional development for all NSP staff; including training on working with people from Aboriginal and Torres Strait Islander, culturally and linguistically diverse, and younger populations.
- 8.** Encourage the employment of Aboriginal and Torres Strait Islander people and people from diverse cultural and linguistic backgrounds at NSPs.
- 9.** Ensure that policing guidelines relating to NSP clients and operations are current and support the objectives of NSPs, that all police officers are aware of these guidelines, and that police receive information and education on the value of NSPs and of harm reduction more generally.
- 10.** Increase hepatitis B vaccination rates among people who inject drugs, by making hepatitis B vaccinations available at all NSPs where this is appropriate, and utilising evidence-based strategies for improving vaccination rates.
- 11.** Improve the capacity of NSPs to inform and educate clients about hepatitis C and provide referrals to testing and treatment where appropriate.
- 12.** Immediately introduce a prison-based NSP in every Australian jurisdiction, with rigorous evaluations to inform and develop an Australian evidence base on NSPs in prisons.

Introduction

Needle and syringe programs (NSPs) have played a central role in minimising the prevalence of Human Immunodeficiency Virus (HIV) and other blood borne viruses (BBVs) in Australia. They are one of the most effective components of Australia's response to HIV. In addition, NSPs provide a range of other services to support the health and wellbeing of people who inject drugs, a population which generally has low access to healthcare and services. NSPs represent a unique opportunity to improve the health and wellbeing of this group, and to provide education and referral to drug treatment programs where appropriate. NSPs also provide ways of ensuring the safe disposal of used injecting equipment.

In 2002, the Australian National Council on Drugs (ANCD) released a position paper on NSPs recommending wider recognition of their roles in public health, expansion of services, and increased staff training, as well as providing other more specific recommendations. In the time since, evidence on effectiveness and cost-effectiveness of NSPs has continued to accumulate. There has been some expansion of programs in this time, and other progress such as increased public support for NSPs (1, 2).

Some factors which limit the effectiveness of NSPs remain, however, and the context in which NSPs operate continues to change. Whilst rates of HIV in Australia are low compared to some countries, the number of new notifications of HIV per year has risen over the last decade, and rates of viral hepatitis remain high (3). New drug use trends have emerged, such as increases in prescription opioid misuse and performance and image enhancing drug (PIED) use, which put new populations of people at risk of blood borne viruses, and other risks associated with drug injection. It is important that Australia's successful use of NSPs continues, and that it can adapt to new demands, as well as addressing remaining barriers to best practice.

This paper elaborates the ANCD's position on NSPs, with particular attention to the importance of governments showing continued commitment to NSPs as a crucial public health measure. We also discuss some particular factors that limit the success of NSPs and some specific issues in need of attention. Addressing these factors and issues would enable Australia to expand and further capitalise on our successes in developing and operating NSPs.

Needle and syringe programs in Australia

NSPs contribute to the prevention of BBVs by making sterile injecting equipment available to people who inject drugs. In the following subsections we briefly overview the history of NSPs, current NSP operations in Australia, and the successful contribution they have made to BBV prevention.

History

The world's first formal NSP began operation in Amsterdam in 1984, when the role of shared injecting equipment in spreading HIV was beginning to be recognised. Informal needle distribution and/or exchange had occurred prior to this among peer networks (4). Amsterdam's NSP operated as a one-for-one exchange of injecting equipment, and was organised by the Municipal Health Service in association with a Dutch drug consumer group, the MDHG Belangenvereniging Druggebruikers (Interest Association of Drug Users) (5). A 1986 letter to the *Lancet* medical journal spread awareness of the NSP, outlining its operation as part of a set of measures which aimed to prevent the spread of HIV, and also as a component of Amsterdam's "pragmatic, non-moralistic approach" to drug problems (6).

NSPs then spread throughout Europe and other countries, including Australia. This spread was enabled by, and reflects, changing approaches to public health and healthcare and, importantly, the threat posed at this time by the spread of HIV and the urgent need to take preventive steps. Factors contributing to changes in approach included the first organised drug consumer groups being formed during the late 1970s in Europe. These groups pursued a range of activities, including providing education, peer support, and services to people who use drugs, and advocating for policy reform. A major focus of these groups since the 1980s has been HIV prevention and education, and advocacy on behalf of people who use drugs, as well as people who have HIV (5).

Around the same time, the notion of consumer participation in healthcare had begun to gain currency. This was partly due to concerns among both patient groups and public health professionals to promote patients' autonomy and their ability to actively take responsibility for pursuing their healthcare aims. This was part of a broader movement focused on 'health promotion', which sought to actively promote health rather than having individuals primarily seek healthcare reactively (7). These goals were encapsulated in the 1986 *Ottawa Charter on Health Promotion*, formulated at the First International Conference on Health Promotion organised by the World Health Organization. The Charter defined health promotion as "the process of enabling people to increase control over, and to improve, their health", aiming to increase "the options available to people to exercise more control over their own health [...] and to make choices conducive to health"; and to promote healthcare equity (8).

Applied to people who inject drugs, this approach had implications for the way that they were perceived by the public, and particularly by policy makers. Rather than regarding people who inject drugs as either passive victims or morally troubled, policy makers could begin to regard them as potentially actively engaged in decisions about their own health, and able to take responsibility for choices surrounding injection – including choosing to do so in safer ways, and to dispose of used equipment responsibly when given the opportunity to do so. Actions by drug consumer groups were also forcing the realisation that people who inject drugs are an obvious source of knowledge about reducing the harms that are associated with injecting (4, 9). At the same time, there was an urgent need to respond to the spread of HIV and develop prevention measures.

Consistently with these developments, a new focus on harm reduction measures in drug policy arose, as part of "broader policy shifts away from the treatment of dependence and towards the management of

the health of people who used drugs” (4). Harm reduction aims to reduce harms associated with drug use, without necessarily reducing drug use itself. Since the primary aim of NSPs is to prevent the spread of BBVs, they are a paradigm example of harm reduction (although in Australia, NSPs also play other roles including contributing to demand reduction, and providing pathways to treatment). In the midst of the threat of HIV during the 1980s, the need for prevention overcame much of the resistance to harm reduction measures in the community, allowing some unprecedented progress in their implementation.

The first Australian NSP began operation in Sydney in 1986. At this time there were Federal laws and State/Territory laws in each jurisdiction prohibiting the supply of equipment for the use of injecting drugs, so that this NSP was initially an act of civil disobedience. Distribution of injecting equipment may also contravene laws against aiding and abetting an offence, or placing others at risk of danger (10). Those involved in the first Australian NSP had, however, become frustrated after government approval for an NSP pilot was not obtained, perceiving a need for urgent action to prevent the spread of HIV among Australian people who injected drugs (10), their families, and the general community. The New South Wales government did not prosecute those involved, and instead endorsed continuation of the NSP as a trial. Soon after, NSPs had obtained bipartisan support and were embraced with policy reform, and an official NSP system was implemented by all States and Territories.

Resistance to NSPs, which continues today albeit at lower levels (see Figure 1), is related to the perception that to provide sterile injecting equipment is in some sense to condone illicit drug use. This need not be the message that is sent by NSPs, nor is it their intention. Although harm reduction measures seek to reduce only the harms associated with drug use, they are entirely consistent with efforts to reduce demand for drugs. Harm reduction approaches are conceptually similar to other public health or safety measures, such as laws ensuring the wearing of seat-belts: these can reduce harms from road accidents, although they do not reduce the incidence of accidents.

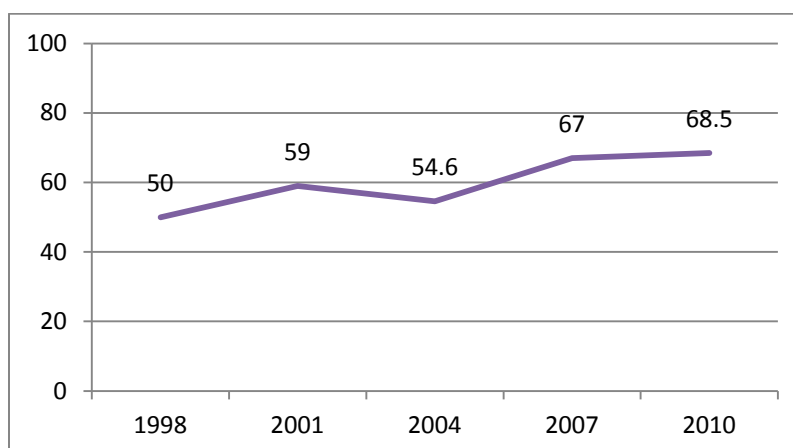
The risk of HIV in injecting drug users is not limited to themselves but to their sexual partners and, tragically to their children. In New York City, which has a population about the same size as New South Wales but rampant HIV among IDUs [injecting drug users], more than 17,000 paediatric cases of AIDS have been reported, compared to 42 in New South Wales. These paediatric cases in New York City were in almost all cases the direct result of one or other parent being an IDU. There is a serious risk to Australian children of HIV infection acquired from their parents should an uncontrolled epidemic erupt among IDUs, if present programs are curtailed.

Professor Penny and Dr Wodak, Sydney Morning Herald, 1997, August 19, p15

Furthermore, there is now clear evidence that making sterile injecting equipment available does not encourage people to inject, or increase overall drug use. In fact, the available evidence indicates that the opposite is true: some studies have found that NSPs are associated with increased treatment-seeking, and (in one study) reductions in drug use (11, 12). Nor have other public concerns surrounding NSPs eventuated: they are not associated with a concentration of drug users in one location, or increases in discarded equipment (11). Although concerns about NSPs continue to be expressed, public support for

NSPs and other harm reduction measures in Australia has increased over time (Figure 1). Public acceptance of NSPs has been believed to have increased historically via their role in ensuring the safe disposal of used equipment.

Figure 1: Percentage of people who supported NSPs, Australia, 1998-2010 (2)



NSPs were included in the first *National HIV/AIDS Strategy* in 1989 (10), and harm reduction was recognised as an important aspect of Australia's approach to drugs in the *National Drug Strategic Plan* released in 1993 (13). This was unprecedented internationally, and made Australia the first country officially to endorse harm reduction. Today harm reduction remains one of the three 'pillars' of Australia's harm minimisation strategy, along with demand reduction and supply reduction. The current *National Drug Strategy 2010-2015* states that the pillars are equally important and should be mutually supporting (14). NSPs represent a major form in which harm reduction is undertaken.

Australia's present needle and syringe programs

Australia's NSP systems now incorporate a range of service modalities. These include primary NSPs, dedicated to providing sterile injecting equipment and other services to people who inject drugs; peer-based NSPs, which are in general similar to primary NSPs but are operated by injecting drug using peers (often through Australia's drug consumer organisations); secondary NSPs, which are run within another health service; pharmacy NSPs; syringe vending machines; and mobile and outreach services. While data on NSP operations is currently not collected in a nationally consistent way, it has been estimated that in 2009, there were just over 3,500 NSPs in Australia (Table 1); and that over 30 million needles/syringes are distributed each year (Table 2).

In addition to providing sterile injecting equipment (needle and syringes, swabs, water, and appropriate 'sharps' containers for safe disposal of used equipment), NSPs play a number of other roles in delivering health services and information to people who inject drugs. People who inject drugs often have poorer health than the general population, but are less likely to access health services (for a range of reasons,

including discrimination) (15). They may also face difficulties accessing other social services, such as housing or employment assistance. NSPs are in a unique position to be a contact point for providing health and welfare services to this difficult-to-reach and under-served population. Peer-based and primary NSPs (particularly with peer staff involvement) in particular can represent to people who inject drugs a form of healthcare which is less likely to discriminate against them, and enable the start of trusting relationships with healthcare groups and professionals.

Table 1: Number of NSPs in Australia (estimates only)^a (16)

	Primary NSP	Secondary NSP	Vending Machine	Outreach NSP	Pharmacy NSP	Total
NSW	33	270	110	11	445	869
VIC	11	128	0	25	932	1096
QLD	15	125	23	0	438	601
SA	1	80	0	5	180	266
WA	2	101	5	2	440	550
NT	3	10	0	0	12	25
ACT	2	6	5	2	29	44
TAS	6	20	3	0	66	95
Australia	73	740	146	45	2542	3546

a. Figures were sourced from State and Territory governments, but given differences in classification of NSPs by jurisdiction counting procedures may have differed. It is not clear how many NSP operations receive funding from different levels of government; or which of these NSPs are peer-operated.

Table 2: Number of needles/syringes distributed in Australia, 1999-2000 to 2007-08 (millions) (1)

	1999/2000	2000/01	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8
NSW	11.57	12.43	10.34	9.12	9.00	8.92	8.81	8.56	8.29
VIC	7.97	7.83	7.10	7.38	8.17	8.59	8.24	8.46	9.35
QLD	5.82	5.55	5.24	5.89	6.37	6.22	6.74	7.23	7.07
SA	2.82	3.02	3.00	3.44	3.61	3.68	3.57	2.92	2.76
WA	3.04	3.18	3.60	3.56	3.50	3.79	4.20	4.27	4.04
NT	0.46	0.40	0.40	0.40	0.40	0.39	0.40	0.40	0.38
ACT	0.50	0.66	0.42	0.47	0.50	0.48	0.46	0.47	0.51
TAS	0.76	0.76	0.76	0.76	1.03	1.33	0.78	0.82	0.69
Australia	32.88	33.84	30.86	31.01	32.58	33.39	33.20	33.14	33.10

Additional services offered at NSPs include:

- Information on reducing injecting-related harms (e.g., vein care, BBVs, other injection-related injuries or diseases, and safe equipment disposal);
- Referral to drug treatment and counselling services and facilitation of the entry into treatment;
- Collection of used needles and syringes;

- Distribution of public health educative material including posters and pamphlets;
- Contact information regarding health, social, legal and welfare services;
- Provision of primary health care; and
- Referral to BBV testing and other healthcare.

The laws surrounding the distribution of injecting equipment, aiding and abetting, and placing others at risk of danger, which were initially a barrier to implementing NSP, are still in place. In general, NSPs have been enabled to operate legally via exemptions for particular people or organisations from prosecution under these laws.¹ In some jurisdictions, this exemption needs to be individually granted to each NSP worker by a minister of the crown; in others the exemption applies to those working at authorised organisations. The way in which these exemptions operate has not generally been altered since their first introduction, with the exception that pharmacists no longer need to be on an approved scheme to sell needles and syringes.

Effectiveness of Australia's NSPs

While it is difficult to estimate the current number of people who inject drugs in Australia, in the 2010 *National Drug Strategy Household Survey*, 1.8% of respondents reported using an injectable drug in their lifetime, and 0.4% reported using an injectable drug in the previous 12 months (2). Although self-report measures such as this are thought to under-estimate actual use, and it is not clear how many of these respondents are regular users, generalised to the Australian population this provides figures of 400,000 people who have injected drugs in their lifetime, and 85,000 people who have injected drugs recently.

At the end of 2011, it was estimated that 24,731 people were living with diagnosed HIV in Australia. This represents a rate of 115 per 100,000 people aged 15-49, or just over 0.1% of this population (3). Data from the *Australian Needle and Syringe Program Survey* indicate that HIV prevalence among people who inject drugs and attend NSPs was 1.2% in 2012, and has remained stable at 1.5% or lower over the last five years (17). Over the last decade, approximately 6% of new HIV notifications in Australia were among people who inject drugs (more than half of these were also men reporting having sex with men) (3).

These rates, both for the general population and among people who inject drugs, are significantly lower in Australia than in many other developed countries, and evidence suggests this is due largely to the operation of NSPs from a comparatively early point in the spread of HIV. In comparison, the estimated rate of HIV per 100,000 of the population in the United States of America (diagnosed and undiagnosed) was 456 in 2009, and around 15.6% of people who inject drugs in the United States have been estimated to be HIV positive (18).²

In contrast to the relatively low level of HIV infection, the prevalence of viral hepatitis among people

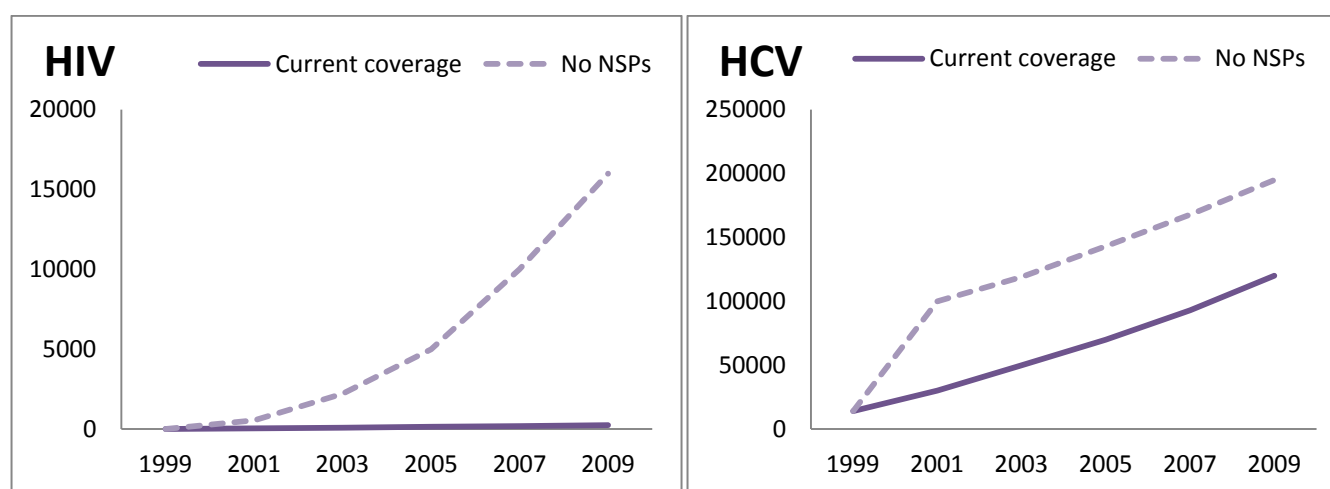
¹ The relevant legislation differs by jurisdiction; see (10) for an overview.

² It important to note, however, that the number of new notifications of HIV has risen over the last 12 years (to 1,137 new diagnoses in 2011), with most new notifications occurring among men who have sex with men (3).

who inject drugs in Australia is high. Hepatitis C virus (HCV) and hepatitis B virus (HBV) damage the liver, and can cause cirrhosis and liver cancer. An estimated 226,700 people were living with chronic HCV in Australia in 2011, and an estimated 209,000 had HBV (3). Sharing of injecting equipment is thought to be the cause of most cases of HCV and HBV transmission in Australia, and 53% of NSP attendees in 2012 were positive for HCV (17). The higher rates for HCV in contrast to HIV are due to HCV being more infectious, and because HCV existed among people who used drugs as early as 1971, although it was not identified until 1989. HCV was thus established in the population much earlier than HIV, and long before the introduction of NSPs and the growth of knowledge surrounding BBVs and their modes of transmission.

There is overwhelming evidence that the provision of sterile injecting equipment through NSPs is effective for reducing HIV prevalence among people who inject drugs, and has been an important part of Australia's success in containing the HIV epidemic (11, 12, 19, 20). There is further evidence to suggest that if HIV becomes endemic in the population of people who inject drugs, then HIV will spread quickly to their sexual partners, children and the wider community (21). In addition, evidence indicates that NSPs have contained the spread of HCV significantly.

Figure 2: HIV and HCV cases in Australia with current NSP coverage and with no NSPs, 1999-2009 (1)



A study undertaken at the National Centre in HIV Epidemiology and Research at the University of New South Wales developed and rigorously tested a mathematical epidemic model of BBV prevalence and NSPs in Australia (1). The model confirmed the effectiveness of NSPs, estimating that between 2000 and 2009, needle and syringe distribution via NSPs prevented 32,050 cases of HIV and 96,667 cases of HCV (Figure 2).

The study used these data to calculate the cost-effectiveness of NSPs. In terms of short-term direct healthcare costs, NSPs were calculated to have saved \$1.28 billion dollars during 2000-2009. With an investment in NSPs of \$243 million, this is approximately \$4 returned for every \$1 invested. When other potential savings such as productivity gains and patient/carers costs were included in the analysis, savings were calculated to be much higher, at \$27 returned on each \$1 of investment. Notably, this

figure is still a conservative estimate of savings, as it excludes costs from secondary infections, injection-related injuries, and the follow-on benefits accruing from the information and referral services provided by NSPs (1).

The mathematical model was also used to predict rates of BBV occurrence at different levels of NSP investment in the future. Results showed that decreased funding of NSPs would result in increases in both HIV and HCV, and that expansion would have significant benefits, especially in HCV prevention (1). The continued support of NSPs is essential to the maintenance of low rates of HIV infection in Australia, and for addressing HCV and HBV.

There is also evidence that NSPs have other positive effects. They contribute to safe disposal of injecting equipment, through collecting used equipment, providing safe disposal containers, and providing education on safe disposal (22).³ International studies indicate that NSPs can facilitate entry into treatment, with some studies indicating that NSP attendance can increase the probability of treatment uptake (11). While there is limited information available about people who inject drugs who do not use NSPs, one study which compared people who injected drugs and attended NSPs with those who did not found that NSP attendees were more likely to be involved in treatment, to have been tested for BBVs, and to have sought help for an injection-related problem (24).

A continuing commitment to needle and syringe programs

Australia's NSPs have been a significant public health success. They have contributed to minimising the spread of HIV and other BBVs in Australia; provide an important point of access to health and other services for people who inject drugs; contribute to the safe disposal of used injecting equipment; and provide significant returns on investment. It is important that Australian governments demonstrate a continued commitment to NSPs to ensure this continued success. More benefits could also be obtained from NSPs by further expansion. In this regard, although offering other services to people who inject drugs at NSPs is important, it is crucial for the continuing success of NSPs that their core business remains the provision of sterile injecting equipment. Although provision of extra services is important, and best utilises the opportunity for contact with people who inject drugs, it is the provision of sterile injecting equipment as the primary role of NSPs that makes it possible for them to reach this population.

Despite the success of NSPs, and increased public support for them over time, they are still vulnerable to critique, which often misunderstands the role of NSPs (and harm reduction strategies more generally) in responding to drug use problems. Harm reduction, despite being one of three pillars in Australia's National Drug Strategy, was estimated to receive only 2.1% of drug policy expenditure in 2009/10 (25). In addition, between 2002/03 and 2009/10, there has been a decline in both the proportion of funding directed to harm reduction (from 3.9% to 2.1%), and in direct spending on harm reduction (from \$44.8

³ State and Territory data indicates that in general, less than 1% of needles and syringes are discarded inappropriately (11, 23).

million, or \$54.5 million adjusted to 09/10 prices, to \$36.1 million) (25). The ANCD is also aware of reports of NSP programs being de-funded, or experiencing an attrition of funding over time. This can result in fewer additional services (such as primary health care) being offered; reductions in the kinds of sterile equipment available at NSPs; reductions in the quality and extent of services delivered at listed NSPs; and increasing practices of charging for equipment on a cost-recovery basis at NSPs. It thus impacts on the capacity of NSPs to deliver essential NSP services, as well as additional services, to people who use drugs.

This decline of funding support for NSPs is of serious concern. The ANCD believes this reflects an apparent recent complacency surrounding the provision of harm reduction services – of which NSPs are a major part, receiving 80% of overall harm reduction spending (25). NSPs may be vulnerable to being sidelined in terms of policy attention, being a unique kind of service within other responses to drug use and HIV prevention, and somewhat isolated even within the alcohol and other drug sector. Several recent changes in funding procedures further complicate this issue. In 2009, NSP funding from the Federal Government was rolled into broad-banded general healthcare payments. Previously, each jurisdiction received this funding via Specific Purpose Payments which required them to expend the funds on NSP programs. The level of funding to be allocated to NSPs under the new arrangements now delegates the decision on quantum of funds to States and Territories. It is not clear what impact these changes have had on NSPs throughout Australia, because at present, it is not possible to track funds allocated to NSPs through State and Territory budgets. There is thus no easy way to understand how funds are allocated, or to ensure that States and Territories continue to direct appropriate levels of funding toward NSPs.⁴ The lack of transparency surrounding NSP funding is in itself problematic, and complicates attempts to collect other data on NSPs.

Aside from spending, at present Australia lacks national data on NSPs, including consistently developed data on the numbers of needles and syringes distributed. Although each State and Territory does ask questions of clients at each collection of equipment, it is not always clear whether this data is collated, or for what purpose it can or should be used. Only Queensland makes its data on NSPs publicly available (26). Data collection is not undertaken consistently, so that it is not comparable between jurisdictions, or easily collated for national data. Investigations undertaken by the Australian Injecting and Illicit Drug Users League (AIVL) indicate that questions asked at NSPs of clients are not always consistent within, as well as across, each jurisdiction, and that staff may not have a clear idea of the purpose of questions asked (27). Variations in reporting (or lack of reporting) arise from different interpretations by each jurisdiction of what data is required and what its purpose is (28). NSPs are also funded through State and Territory funds, and at times through NGOs who may receive funding from a range of sources, further complicating attempts to collect comprehensive data. Although there has previously been effort expended in examining this issue with the intention to develop a national minimum data set (28), this has not yet been implemented.

The lack of data availability is a significant limitation. Consistent and comparable data is needed in order to develop effective policies and to assess the effectiveness of NSPs, and for planning and decision-

⁴ The estimates of spending noted above are derived from a survey-based approach. See (1, 25) for more detail.

making. It would also aid the development of consistent standards for NSPs nationally. In addressing these issues, and developing a national data set, we recognise that it is important to be sensitive to issues of data collection at NSPs, given the importance of confidentiality to these programs (28). It also needs to be made clear to clients when they are asked questions (such as the most recent drug they injected, and demographic data) what the information will be used for, who may have access to it, and other information standard for giving informed consent; and importantly, that they do not have to answer the questions for service provision (27). Improved data collection was identified as a key result area for NSPs for 2010-14 under the *National NSP Strategic Framework* (16).⁵ As this framework is due to expire at the end of 2014, its continuation or further development would also be recommended.

In addition to these issues, and their impact on the ongoing effectiveness of NSPs, there are a range of factors which currently limit the effectiveness of NSPs. Sharing of injecting equipment still occurs: Australia has not achieved full coverage of injections with new, sterile equipment. Factors which are currently known to limit the overall effectiveness of NSPs by reducing access to them, and measures to address these factors, are discussed below. Given the risks of serious consequences, and the capacity to avoid these risks through a means that is demonstrably highly cost-effective and has a range of additional benefits, the ANCD considers it appropriate to aim for 100% coverage of injections with sterile equipment.

In the context of changing drug use trends, rising HIV notifications, some continued misunderstanding of NSP operations among the general public which may impact on policy, and the above data and funding issues, a continuing commitment to NSPs by all Australian governments is crucial to ensuring their continued success in preventing the spread of HIV and other BBVs.

Recommendations:

1. A continued commitment by all Australian governments to the operation and expansion of NSPs in Australia.
2. Develop systems that enable transparency in NSP funding.
3. Develop and implement a national minimum data set for all Australian NSPs.
4. Consider further development of the *National NSP Strategic Framework*, or the extension of the current Framework beyond 2014.

⁵ This Framework was developed by the Victorian Department of Human Services for the Australian Government Department of Health and Ageing, at the instigation of representatives from Federal and jurisdictional health departments, and NSP policy managers and practitioners, and was developed drawing on research and consultation. See Appendix A of the Framework for more information (16).

Limitations on needle and syringe programs in Australia

There are several ways in which, despite their impressive success, Australia's NSPs are less successful than they could be. First, sharing of injecting equipment still occurs; we have not achieved 'full coverage', of having all injections occurring with new, sterile equipment.⁶ Even among NSP attendees, who are the subgroup of people who inject drugs most likely to have good coverage of injections with sterile equipment, 15% reported re-using someone else's needle or syringe in the previous month in 2012. Up to 33% re-used someone else's ancillary injecting equipment (17), which also carries risks of BBV transmission. A survey undertaken in Sydney reported that 20% of people who injected drugs but did not access NSPs had re-used others' syringes in the previous month (24). Other research has estimated that between 20% and one-third of people who inject drugs have not had access to sufficient syringes to cover all injections (29, 30).

A number of factors that reduce access to NSPs and so to sterile injecting equipment have been identified. These include:

- limited NSP operating hours (particularly during weekends and evenings);
- geographical availability of NSP services (sometimes combined with transport issues);
- limits in some jurisdictions on the amount of equipment people may access per day or visit; and
- the cost of equipment (which differs by location and service modality).

In addition, some factors make people who inject drugs wary of accessing NSPs, which could involve identifying themselves to others as people who inject drugs, or being targeted by police. Features that could reduce or appear to threaten anonymity at NSPs (such as nearby CCTV cameras) can discourage access. Those who experience NSPs as having a negative, discriminatory, or distrustful view of people who inject drugs may also be reticent to access any other NSPs (31). These can be experienced either directly, such as in the attitudes of staff (this is more likely to be problematic at non-primary NSPs), or indirectly, such as in physical setups in or around NSPs (e.g. high counters between clients and staff, or surveillance cameras) (10, 30, 32-35).

Research also suggests that some groups are particularly unlikely to access NSPs. These include Aboriginal and Torres Strait Islander people, people from culturally and linguistically diverse (CALD) backgrounds, and young people.⁷ In part, this reflects some of the barriers to access discussed above, as some of these may be more acute for people from these populations: Aboriginal and Torres Strait

⁶ In addition to risks associated with sharing, a syringe that is used several times even by one person is more likely to lead to injury.

⁷ HIV currently occurs among Aboriginal and Torres Strait Islander people at a similar rate to non-Indigenous Australians (excluding those from countries with high HIV prevalence). However, between 2007 and 2011, 16% of new HIV diagnoses among Aboriginal and Torres Strait Islanders were attributed to sharing of injecting equipment, in contrast to 2% among the non-Indigenous population. Rates of HCV and HBV are both much higher among Aboriginal and Torres Strait Islanders than non-Indigenous Australians (36). Regarding younger people who inject drugs, research suggests that they are less likely to access NSPs and more likely to engage in needle sharing and other risky behaviour (24, 37). This is particularly problematic in light of international evidence which suggests that people who inject drugs are likely to acquire HCV early in an injecting career (38).

Islander people are more likely than many other groups to live in regional and remote areas, making geographical access an issue; and many people from Aboriginal or Torres Strait Islander and some CALD backgrounds live in small or close-knit communities even in metropolitan areas, making anonymity more problematic. These groups can also experience additional barriers to access, such as those arising from distrust of 'mainstream' services (39), lower levels of knowledge about BBV risks (39), and language differences (35).

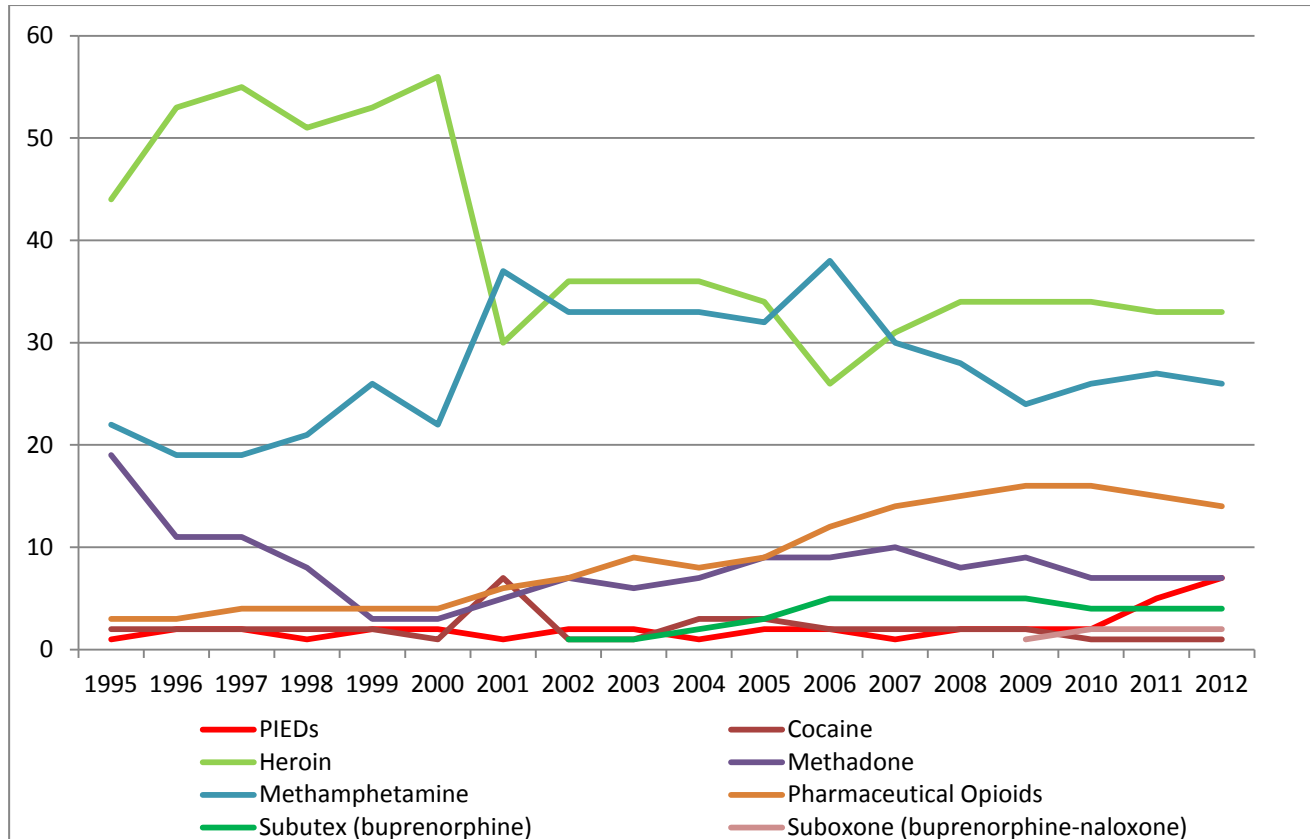
Furthermore, difficulties accessing NSPs can be exacerbated by street-level policing activities. There has and continues to be strong support for NSPs at the highest levels of law enforcement organisations, and overall Australia has an exemplary track record of positive partnerships between law enforcement and harm reduction services. But, although there are police guidelines (in all jurisdictions and nationally) which state that policing should be carried out consistently with harm reduction initiatives, there are also continuing reports of people who inject drugs being the target of street-level police attention, as a result of visiting NSPs or possessing injecting equipment on their way to or from NSPs (10, 39-41).

One particular lost opportunity with regard to increasing access to sterile injecting equipment is that in all jurisdictions, it is still illegal for anyone who is not exempted from the relevant legislation to distribute sterile injecting equipment. Thus it is illegal for people who inject drugs – or others – to distribute equipment obtained from NSPs further throughout peer networks; the legislation also restricts volunteer activities within NSPs. There are indications that secondary exchange occurs nonetheless, and may even be responsible for a large proportion of the distribution of sterile equipment. The extent of secondary exchange is difficult to assess, but in one survey of people obtaining injecting equipment from pharmacies in Sydney, over half of respondents engaged in further peer distribution (42). In any case, however, the current illegal status of these practices does limit the capacity for secondary exchange to increase the effectiveness and reach of NSPs. The benefits of secondary exchange have been demonstrated in several international studies, which found that it can help to achieve a greater level of distribution (43, 44). It may also be an effective way to reach dispersed populations in rural or remote areas, and to overcome some of the other barriers discussed.

Other limitations on the effectiveness of NSPs arise from changes in the context in which NSPs operate. When NSP services began, heroin was the drug used by the majority of people who injected drugs. Since then the proportion of people injecting methamphetamines, pharmaceutical opioids, and most recently steroids and other PIEDs, has risen (Figure 3).⁸ This has implications for the kinds of equipment that should be available at NSPs, since some of these substances are typically injected in larger quantities than heroin. NSPs have not, however, necessarily been able to adapt to the needs of injecting drug users.

⁸ *Australian Needle and Syringe Program Survey* data revealed that increases in PIED use have occurred primarily in New South Wales and Queensland during 2010-12 (17, 45). In the 2012 Survey, 55% of people who had been injecting for less than three years reported PIEDs as their last drug injected (17). This trend is consistent with recent increases in steroid seizures (46).

Figure 3: Percentage of respondents to Australian NSP Surveys by last drug injected, 1995-2011^a (17, 47, 48)



a. In 2011, category wording was altered from 'Anabolic Steroids' to 'Performance/Image enhancing drugs'.

In addition, some new populations of people who are injecting drugs may regard NSPs as intending to service only people who use heroin; may not be in contact with peer networks; or may not perceive themselves as 'injecting drug users' – or they may simply be unaware of NSPs. As such those among these populations accessing NSPs may be only a small proportion of new populations of people who inject drugs. Such populations are also more likely to be unaware of BBV and other injection-related risks, as well as safe equipment disposal practices. There is potential for BBVs to spread rapidly among these 'injection-naïve' groups, and from them to their families and the community, in future. Reaching these populations is an important challenge for NSPs.

Addressing limitations

Access and coverage

Difficulties accessing NSPs temporally or geographically could be aided by an expansion of programs and funding, and ensuring that a range of service modalities are on offer (49). Pharmacy and secondary NSPs offer a way to increase the number of outlets from which equipment is available. Vending machines are an option in smaller communities where other options would be difficult to implement, and also offer 24-hour access and anonymity (34). It is also important though to expand the provision of primary NSPs; although information can be distributed by secondary NSPs or through vending machines, primary sites can more readily act as points of contact within the health system, to provide referrals and other services. A ‘hub and spoke’ model incorporating a primary NSP servicing a range of secondary outlets would enable the different benefits of each to be more accessible to people who inject drugs. This could link with a system in which primary NSPs can offer additional services dependent on the identified needs of local service users. Further involvement of non-government organisations in NSP provision could aid this expansion. Locating NSP services within other AOD services, for instance, could aid expansion and diversification of services and would be consistent with recognising NSPs as core business of the alcohol and other drug sector. Supporting peer-operated NSPs is also important. These services are best placed to work with the relevant population, provide peer education and support, and counter the limitations on access arising from discrimination issues.

In addition, easing the restrictions existing in most jurisdictions on the number of needles and syringes available at each visit or on each day is likely to increase overall equipment coverage (30). This has already occurred in New South Wales, and is consistent with the current *National NSP Strategic Framework’s* statement that “The quantity and type of equipment that is provided to service users should maximise the opportunity for BBV and IRID [injection-related injury and disease] prevention” (16). The reasons these restrictions are currently in place include discouraging exchange of equipment by peers or others, the perception that it could conflict with ensuring safe disposal of used injecting equipment (which is important for community acceptance of NSPs), and the concern that unlimited supply could be exploited by drug dealers who might sell on the equipment (10). Whilst the ANCD acknowledges these issues, any such effects are unlikely to outweigh the important benefits of increasing sterile equipment provision, where needed.

Coverage could also be aided by ensuring that equipment is free wherever possible. There is evidence that even a seemingly small charge can discourage use of sterile equipment (39). The ANCD considers charging to be appropriate only in some cases (such as where vending machines are coin operated, not in order to collect funds, but to prevent unnecessary dispensation of equipment, for instance by vandals). Given the importance of NSP effects and their exceptional cost-benefit ratio, there should be no role for cost recovery in NSPs. We recognize that some organizations who run NSPs, including consumer groups, do charge on a cost-recovery basis due to restricted funds. Increasing support for such peer-operated NSPs to avoid this necessity should be much preferred.

The equipment provided by NSPs also needs to better reflect the needs of injecting drug users. It is important that provision of ancillary equipment is not compromised by funding shortfalls. As noted above, changing drug use trends have also altered what sort of equipment is appropriate to supply through NSPs. Most syringes supplied at NSPs are 1ml with insulin gauge needles. While some NSPs do provide larger-bore syringes as well as a range of other equipment, there are reports that the range of equipment on offer is decreasing in many jurisdictions, or may require client payment. In New South Wales larger-bore syringes have been removed from NSPs entirely as a means of discouraging injection of methadone (10). However, larger-bore syringes are appropriate for injections of steroids, pharmaceutical opioids and some other drugs. Both new populations of people who use drugs, and existing groups, may therefore be underserved, by the range of equipment currently available at many NSPs. The ANCD acknowledges the difficulty in providing injecting equipment for drugs that are not intended for injection but consideration must also be given to the public health risks associated with the unavailability of injecting equipment.

Recommendations:

5. As part of an aim to attain 100 per cent coverage of injections with sterile injecting equipment, increase the availability and accessibility of sterile equipment for people who inject drugs, by:
 - 5.1. Expanding the number of NSP service locations (including syringe vending machines), and broadening of the types of health-related services involved in delivering NSP services.
 - 5.2. Encouraging primary NSP services to initiate and support a range of secondary outlets within agreed geographical boundaries.
 - 5.3. Increasing the role and participation of non-government organisations, particularly peer-based services, in NSP delivery.
 - 5.4. Removing any restrictions that limit the amount of sterile equipment that may be dispensed.
 - 5.5. Ensuring that equipment is free wherever possible.
 - 5.6. Increasing the range of injecting equipment available at NSPs, including ensuring the provision of ancillary equipment, to meet the existing needs of people who inject drugs and changing patterns of drug use.
 - 5.7. Supporting research into understanding the injecting practices of people using pharmaceutical opioids and performance and image enhancing drugs, as a component of increasing their awareness about and willingness to access NSPs.

Secondary exchange

One particularly effective way to improve coverage would be to utilise secondary exchange; that is, to allow peers, and others, to distribute sterile injecting equipment after having obtained it through a

formal NSP. This method could be very effective for improving coverage of injections with sterile equipment, and reducing equipment re-use. It is also worth noting that secondary exchange of equipment is associated with other benefits, such as increasing peer-to-peer education on health risks and harm reduction strategies (43). The value of peer education for reducing risk behaviours and potential health harms has been demonstrated (50) and is endorsed both the *National NSP Strategic Framework* and the *National Hepatitis C Strategy* (16, 51). Peer-delivered initiatives including education are also recommended by the World Health Organisation (52).

Recommendations:

5. As part of an aim to attain 100 per cent coverage of injections with sterile injecting equipment, increase the availability and accessibility of sterile equipment for people who inject drugs, by:
 - 5.8. Removing any onerous approval processes necessary for health services and staff to be involved in NSPs.
 - 5.9. Amending all relevant legislation (Federal or jurisdictional) to legally permit the secondary distribution of sterile injecting equipment (e.g. by peers and others) to people who inject drugs.

Stigma and discrimination

Stigmatisation of, and discrimination against, people who inject drugs continues (53). It is a major barrier for many people who inject drugs in accessing NSP services, and so lowers sterile equipment coverage. The United Nations has recognised stigma and discrimination as significantly reducing the effectiveness of harm reduction strategies (54). Addressing the lack of understanding in the community about the rationale for and benefits of NSPs was identified as a challenge in the *National NSP Strategic Framework* (16).

Although public support for NSPs has risen over time, beliefs that NSPs encourage injecting drug use, or that they attract people who use drugs to a local area, are still evident (10), despite a lack of evidence for such effects (11). Some who support NSPs in theory may still oppose their presence locally (the 'Not In My Back Yard' effect). It is therefore important to continue efforts to educate and correctly inform the public. One landmark study showed that simply providing people with a brief explanation of how NSPs work increased support for NSPs (55). In recognition that public attitudes are important to the continued operation and success of these programs, an NSP Information Kit incorporating a question-and-answer-styled information document and an evidence review were developed by the Australian government (11, 22). Updating these documents and further disseminating them among the community may help to increase community understanding of and support for NSPs.

Such measures could also help to improve access generally by combating discrimination against service

users. While many NSP staff are highly committed to improving the health and lives of people who inject drugs, there are also reports of discomfort with staff being a barrier to NSP access, although this is more likely at hospital and pharmacy NSP settings (10). Trust in healthcare professionals and rapport with staff at NSPs have been associated in international studies with reduced sharing of injecting equipment, and other health benefits (15, 56). Continuing staff education, particularly at these locations, could therefore help to support trust in these services and improve access.

Recommendation:

6. Update and further disseminate the Australian Government's NSP Information kit to the community, and particularly to people whose work may bring them into contact with NSP attendees who are not primary NSP staff, including police, pharmacy and hospital workers, to further inform them on the functions and successes of NSPs.

Aboriginal and Torres Strait Islander, CALD, and younger populations

Aboriginal and Torres Strait Islander people, people from CALD backgrounds, and young people have been identified as priority populations in the *National NSP Strategic Framework* (16). There are several ways in which the barriers specific to these groups could be addressed. A report into NSP use by Indigenous people recommended cultural training for NSP staff, recruitment of Indigenous workers or volunteers, increased use of mobile or outreach services where appropriate, and funding for more holistic NSP services (39). While there is less knowledge about CALD populations, some of these measures could also be of use in improving their access, as well as employing peers from CALD backgrounds and others with language skills relevant to servicing local populations. Some of the actions indicated above, such as utilising secondary exchange and peer education through legislative change, and expansion of funding and services using a range of modalities, could be of great value in these regards.

Some specific strategies that could support encouraging younger people who inject drugs to access NSPs include employing younger staff and supporting staff training in working with young people. Again, secondary exchange could play an important role in this regard. Often, younger people avoid NSPs because they do not identify with the injecting drug use culture, and may not wish to (37). At the same time, most people who have been injecting for a shorter time are likely to be in contact with more experienced users who could be a source of information about risks and safer practices (50); this peer education could be encouraged by utilising peer exchange.

Recommendations:

7. Increase the provision of ongoing training and opportunities for professional development for all NSP staff; and including training on working with people from Aboriginal and Torres Strait Islander, culturally and linguistically diverse, and younger populations.
8. Encourage the employment of Aboriginal and Torres Strait Islander people and people from diverse cultural and linguistic backgrounds at NSPs.

Street-level policing

While harm reduction has been supported by law enforcement agencies since its inception in Australia, the evidence discussed above indicates that agreements at higher levels of law enforcement organisations to support harm reduction initiatives, and use discretion in enforcing some of the laws that are in place, may not always ‘trickle down’ to street level police actions. Ensuring that all police are aware of guidelines, and extending education on NSPs and harm reduction to police, could help to ensure support, and that the partnerships agreed to at operational levels are carried through in street-level police activities.

Recommendation:

9. Ensure that policing guidelines relating to NSP clients and operations are up to date, that all police officers are aware of these guidelines, and that police receive information and education on the value of NSPs and of harm reduction more generally.

Addressing specific issues

Hepatitis

There is scope for improvement in Australia’s response to viral hepatitis, and NSPs are in a unique position to play a role. There is currently no vaccine for hepatitis C, but it is treatable with combination therapy of weekly injections and daily tablets. This therapy leads to a cure for around 50% of people with genotype 1 and 80% of people with genotypes 2 or 3, and is more effective when treatment begins earlier. New pharmaceutical therapies which can increase the effectiveness of treatment were recently included in the Pharmaceutical Benefits Scheme, which may help to aid treatment uptake. Despite the availability of these treatments, however, in many cases HCV diagnosis occurs late, and treatment may be delayed or not taken up at all. Of concern, in 2006 it was estimated that only 1.4% of people living with chronic HCV received treatment during that year (57), and treatment rates are likely to be even

lower among people who inject drugs (58, 59). Some people who inject drugs may also lack knowledge about HCV (59). In 2011, 54% of NSP attendees reported having been tested for HCV in the previous year; and while relatively few had never been tested (12%), there is scope for improvement in this regard.

HBV is overall less threatening to health than HIV or HCV, and a safe and inexpensive vaccine is available which is effective in 95% of cases. Perhaps because of this, however, HBV has not been a focus of harm reduction efforts to the same extent as other BBVs; and there is less data available about HBV incidence and risk factors. HBV can be fatal if left untreated, and caused an estimated 382 deaths in 2011 (3). Universal vaccination programs for hepatitis B were introduced in Australia in 2000, and in 2008 'catchup' vaccination programs for adolescents were introduced (3). However, it will likely take some time for these measures to have pronounced effects. We also lack good data on the exact number of hepatitis vaccinations being performed. One study of people who injected drugs found a high rate of HBV testing (65% in the previous year); but also reported that only 27% of participants could be identified as having been vaccinated, and that about half of those who believed they had been vaccinated showed no biological evidence of such vaccination (60). It is also important to note that although needle sharing is thought to be the leading cause of new transmissions of HBV in Australia, up to half of people with HBV were born overseas, and HBV is endemic in some countries in the Asia-Pacific region. Two-thirds of migrants to Australia come from this region. It can thus be considered a matter of some urgency to improve our response to HBV (61).

At present, NSP attendees may be referred for HBV vaccination, but many may not follow through on the referral or complete the vaccination, which involves three injections at 0, 1 and 6 months (or an accelerated schedule of injections at 1, 7 and 21 days). Some research has been undertaken into improving uptake of vaccination for HBV. Using the accelerated schedule does improve uptake and completion (52), although there is still some lack of clarity on its comparative effectiveness (62-64). Providing a small financial incentive to complete the vaccination schedule has been the subject of some research, and appears to have some effectiveness as well as being quite cost-effective (52, 65). Other options that might be considered are provision of HBV vaccinations at NSPs, where possible, or the use of an outreach model to offer vaccinations.

Recommendations:

- 10.** Increase hepatitis B vaccination rates among people who inject drugs, by making hepatitis B vaccinations available at all NSPs where this is appropriate, and utilising evidence-based strategies for improving vaccination rates.
- 11.** Improve the capacity of NSPs to inform and educate clients about hepatitis C and provide referrals to testing and treatment where appropriate.

Prisons

The lack of NSPs in Australian prisons is a significant limitation. Rates of BBVs are much higher among the prison population than the general population. In the most recent (2010) *National Prison Entrants Blood Borne Virus Survey*, while there were no cases of HIV, there was a 22% prevalence of HCV, and a 19% prevalence of HBV. Of the 811 prison entrants surveyed, 44% reported a history of injecting drug use (66). Around one third of people who inject drugs are thought to continue to inject drugs while in prison (67, 68), and in one study, 10% of prisoners reported that they injected for the first time in prison (69). Other practices which increase the risk of transmission, such as tattooing and unprotected sex, are also more common in prisons, increasing the risk of BBV transmission to other prisoners and, on their release, to the community.

Despite this, Australia has been remarkably slow to introduce NSPs in prisons. In August 2012 plans for the first trial needle exchange in an Australian prison were announced in the Australian Capital Territory. The plan is consistent with the *National NSP Strategic Framework*, which states that “Injecting drug use in prison and the absence of NSPs in prisons represents a gap, a risk and a limitation in all jurisdictions and requires urgent attention” (16). The ANCD is strongly in support of this trial, which represents an important step forward for providing equitable healthcare for prisoners.

While it will be important to monitor this trial carefully, there is already much international evidence to show that NSPs in prisons do significantly reduce the spread of BBVs. In Spain, HIV prevalence in prisons was reduced from 24.2% in 1992 to 7% in 2009, following the introduction of prison NSPs and other harm reduction measures (70). A systematic review of evaluations of prison NSPs in Spain, Germany and Switzerland found that syringe sharing was reduced, there were no new cases of HIV, HCV or HBV reported, and drug use itself either remained stable or declined (71). In another review, NSPs in prisons were evaluated as one of the most effective ways to reduce HIV risk behaviours in prisons (72).

The ANCD recognises that a main reason that NSPs have not yet been implemented in Australian prisons is the perceived threat to the safety of prison staff, with the possibility of syringes being used as weapons. While acknowledging the importance of safety of prison staff, we note that there are no reports of this occurring in any prison in which there is an NSP (6, 71). In fact, there are reasons to think NSPs may increase staff safety. One cross-sectional study of correctional officers in two Australian states reported that two-thirds of guards had found needles or syringes while working, and 7% had experienced a needle-stick injury at some point in their work (73). Introducing needle exchanges would allow prison officials to regulate such equipment, and reduce the probability that injecting equipment found in prisons is infected and potentially a threat to prison staff.

Recommendation:

12. Immediately introduce a prison-based NSP in every Australian jurisdiction, with rigorous evaluations to inform and develop an Australian evidence base on NSPs in prisons.

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**FOR FURTHER
INFORMATION**

CONTACT:

ANCD Secretariat

PO Box 205

Civic Square ACT 2608

Tel: 02 6166 9600

Fax: 02 6162 2611

www.ancd.org.au